RELATIVE RISK
New drug reduced cancer incidence by 50%

ABSOLUTE RISK
New drug reduced cancer incidence from 2 per 1000 to 1 per 1000

Absolute risk is more useful at communicating the true impact of an intervention, yet it's often not reported in the research and the news

UNDERSTANDING YOUR RISK OF GETTING CANCER AND/OR HAVING A RECURRENCE

Every woman wants to know what she can do to lower her risk of getting breast cancer or if she has been diagnosed, having a breast cancer recurrence. Lifestyle Factors help genes remain healthy and help to reduce risk. Cancer is ultimately a disease of malfunctioning genes. Only 10% of all cancers occur in people at high risk of developing cancer because of inherited genetic defects. Most of us are born with good genes, but during the course of our lifetimes, genes become damaged and mutate.

Some factors -- like a woman, age, and genetics, for example -- can't be changed. Other factors, which fuel inflammation can be changed by making healthier choices. These changes can lower your cancer risk and the risk of recurrence. It is thought that up to 70% of all cancers might be prevented if we made healthier choices.

UNDERSTANDING RISK: To understand what the numbers mean about YOUR risk, you must first know your risk of getting cancer in the first place or your risk of having a cancer recurrence. If you have been diagnosed with breast cancer your doctor should be able to tell you both your **Relative Risk** and your **Absolute Risk of recurrence**.

Relative risk is used to compare risks between two groups, whereas absolute risk stands on its own.
   Relative risk is the number that tells you how much something you do can change your risk. It can be expressed as a percentage decrease or a percentage increase.
   Absolute risk is **the size of your own risk and tells you the chance you have of developing a disease over a certain time.**

Consider the risk for cancer recurrence in a patient over a 5-year period. If the risk is 2 in 1000 (0.2%) in a group of patients treated conventionally, and 1 in 1000 (0.1%) in patients treated with a new drug, the absolute difference is gotten by subtracting the two risks: 0.2% - 0.1% = 0.1%. **Expressed as an absolute difference, the new drug reduces the 5-year risk for cancer by 0.1%. Given the data above, the relative difference is: 0.1% ÷ 0.2% = 50%. Expressed as a *relative difference,* the new drug reduces the risk for recurrence by half. *Each is accurate.***

Although the drug illustrated reduced the relative risk of cancer by 50%, the absolute risk reduction of getting cancer that effects each individual is only 0.1%.

How to decide whether or not to take a specific treatment.
   You need to balance various things, such as:

- What is the **absolute** risk of getting the disease to start with?
- What is your risk of recurrence?
- How much is the **absolute** risk reduced with treatment?
- What are the risks or side-effects in taking the treatment?
- How much does the treatment cost?